AMERICAN CINEMATOGRAPHER

The Motion Picture CAMERA Magazine

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this issue

DeMille Discusses Process Shots
Balancing Light with Photo Meter
Why is a Cameraman?
Producers Pool Patents
. . . and other features

NOVEMBER
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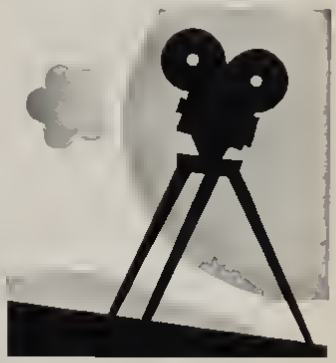

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Next Month

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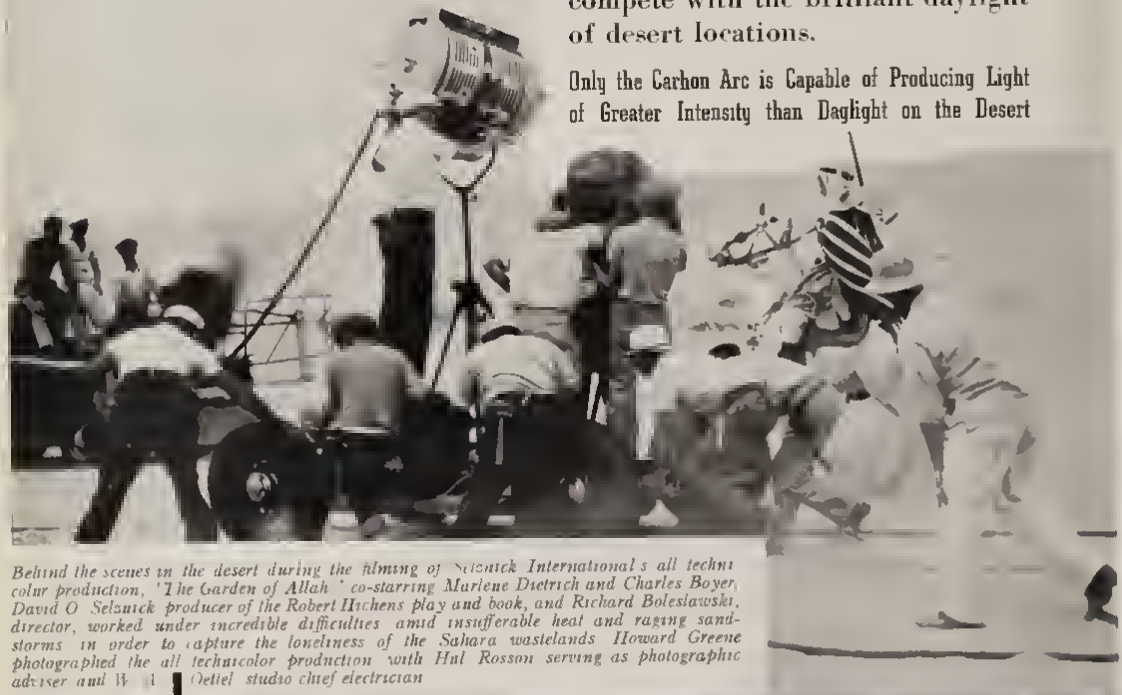

Behind the scenes in the desert during the filming of Selznick International's all technicolor production, "The Garden of Allah" co-starring Marlene Dietrich and Charles Boyer, David O. Selznick producer of the Robert Hichens play and book, and Richard Boleslawski, director, worked under incredible difficulties amid insufferable heat and raging sandstorms in order to capture the loneliness of the Sahara wastelands. Howard Greene photographed the all technicolor production with Hal Rosson serving as photographic adviser and W[illegible] Oettel studio chief electrician.

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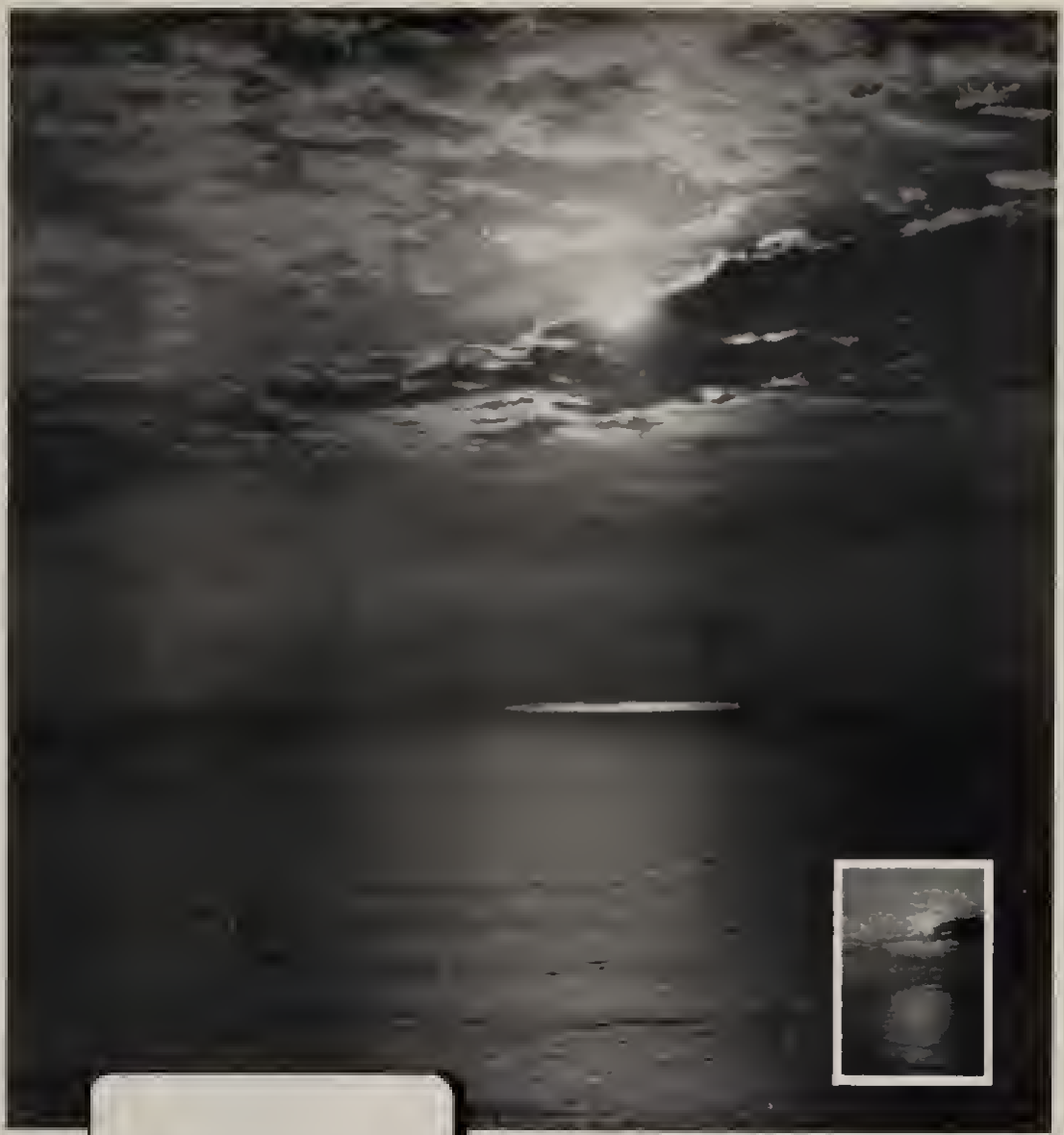

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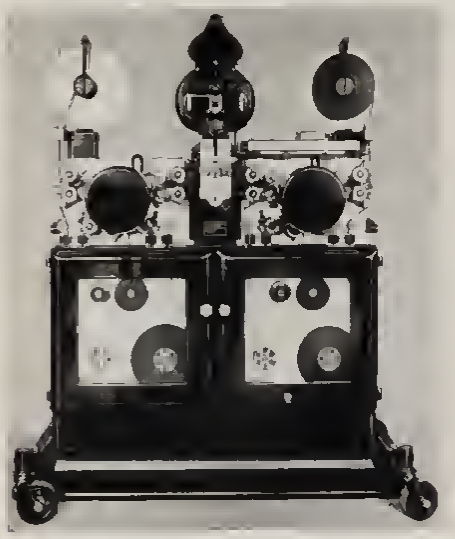

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THE AMERICAN SOCIETY OF CINEMATOGRAPHERS was founded in 1918 for the purpose of bringing into closer confederation and cooperation all those leaders in the cinematographic art and science whose aim is and ever will be to strive for pre-eminence in artistic perfection and technical mastery of this art and science. Its purpose is to further the artistic and scientific advancement of the cinema and its allied crafts through unceasing research and experimentation as well as through bringing the artists and the scientists of cinematography into more intimate fellowship. To this end its membership is composed of the outstanding cinematographers of the world with Associate and Honorary memberships bestowed upon those who, though not active cinematographers, are engaged none the less in kindred pursuits, and who have by their achievements, contributed outstandingly to the progress of cinematography as an Art or as a Science. To further these lofty aims and to fittingly chronicle the progress of cinematography the Society's publication, The American Cinematographer, is dedicated.

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A Director Looks at "Process-Shots"

by
Cecil DeMille
As told to a staff writer

THE EXAGGERATED secrecy that traditionally enshrouds the making of "process-shots" is to me not only unnecessary, but definitely wasteful of much potential publicity for our pictures. The public as a whole knows we make some scenes by trick photography, for there are scenes which obviously cannot be done otherwise. It knows, too, that we make more scenes by "process-shots," since for one reason or another they can be made most convincingly that way. And yet the public—in greater numbers than ever before—is thronging to the theatres. In my travels around the country, lecturing before all sorts of civic organizations, I have noticed that at least as many people ask me about photography and process technique (pretty knowingly, too) as ask me about Marlene Dietrich and Gary Cooper. The amazing spread of 16mm. and 8mm. home-movie making has made the public technique-conscious. Among the better class of film-goers Victor Milner's lighting is as much a drawing-card as many a star.

With this new spirit in the air, I feel no hesitancy about paying tribute to the amazing work done by Farciot Edouart, A.S.C., and his associates in my latest production, "The Plainsman." They have made a notable contribution to both the artistic and the economic phases of the production.

One of the crucial sequences of the production is the re-enactment of a battle between Custer's soldiers and thousands of Indians—the latter, thanks to political profiteers, much better armed than the Government's soldiers. This entire sequence, which requires over 70 pages in the script, was made on the process-shot stage. Moreover, it was made dramatically better, as well as more economically, by this method than could have been possible otherwise.

In filming scenes of this type, the Director has two dramatic elements to coordinate. In the foreground, there is the intimate action of the besieged principals. In the background, the equally important action of the besiegers. In the foreground, he has his principals and from twenty to fifty extras to consider. In the background, he may have five or six thousand Indians and a regiment of cavalry, none of whom are at all picture-wise. Both elements must be perfectly coordinated, or the scene will fall flat. To cite an elementary example, imagine the audience's reaction at seeing a number of Indians "bite the dust" though nobody in the foreground was firing!

To get a sequence like this photographed on an authentic location, one could confidently plan to have a big company on location for two or three months at the least. Days would be spent getting a single good "take" of each scene, for a usable "take" of such action filmed on such a scale, would be more the result of luck than of skill. The problems of transporting, feeding and housing such a company would be tremendous. The expense pared to the bone, would undoubtedly exceed the total budget of the average Class "A" production. Before the sequence was "in the box," one could be quite sure that both schedule and budget would be scrapped.

Instead, however, we made this sequence sensibly—on the process stage. While the principals worked in the studio on other dramatic sequences, Arthur Rosson, my Chief Assistant, and George Robinson, A.S.C., went up to Montana to film the backgrounds for our big sequence. They were on location for a month, and brought back excellent backgrounds. Rosson, who was constantly in touch with me by telephone, could concentrate on handling the 6,000 Indians and the regiment of National Guard Cavalrymen who figured in the scenes. When his Indians missed their cues, he could retake the scene, without sighing for the loss of perfect foreground action. When they did their scene right, he could OK it, there was no delicate foreground action to worry about.

With these backgrounds, we were ready to complete the shots on the process-stage. But before we did this, Farciot Edouart performed a first-class miracle of his own, to make our scenes more complete. In running over the background-shots in the projection-room, it was noticed that there were nice pictorial clouds in some of the shots, and bare, 'bald-headed' skies in others. This was natural, for the location-unit had enjoyed nice skies the first day of their work, and unpleasantly cloudless ones the rest of the time. But it would not be very convincing to see a bunch of Indians charging under white, fluffy clouds in one shot, and in the next, three seconds later, see them coming on under a barren, cloudless sky.

So Farciot, by means of his big Optical Printer, proceeded to put clouds in every one of the cloudless backgrounds. And they were natural clouds, too, which could not be distinguished from the real ones. He refuses to tell me just how he did it, but he did a most remarkable job, not a trace of a matte-line shows in any of the shots.

Similarly, it seemed that the rifle-firing did not extend far enough into the background. There were plenty of smoke-puffs in the foreground and middle-distance, but not enough to be right for an army large enough to endanger the group figuring in the foreground action. So again Farciot stepped into the breach, and produced gun-smoke in the right places and at the right times to synchronize with the sound. The smoke was perfectly natural, even to the perspective. How he did it, I don't know, but it, too, was so perfect that the added smoke couldn't be told from the actual shots, even by a trick-camera expert.

On the stage, we built a set for our foreground. It represented an island in the middle of the river, and was an accurate reproduction of an actual one shown in some of the location-company's reverse angles. This set was built on a wheeled support, so it could be revolved. It was built in sections so that we could use all, or parts of it, as needed. And it was certainly no small affair. It weighed 50 tons!

Set up on the stage, we had not one screen, but two,

Two process screens were used for the background in this shot The tree divided the screens

behind this set, with the space between carefully masked by a dead tree in the set Two projectors threw their images on these screens The background-plates were made by two cameras, side by side, shooting at predetermined angles Note that none of this was left to chance we had planned out every detail—working on large-scale maps and models of the actual location, far in advance As each background-shot was made it was known exactly what was wanted, and precisely how the shot would ultimately be used

These details were so painstakingly planned that we could be confident that if an Indian rode by, say, in the right-hand screen, heading left, he would appear again on the left-hand screen in exactly the right place, and at the right time, to make his movement through the composite shot seem continuous, and broken only as he passed from sight behind the tree-stump!

With this double-width background, we had complete freedom in shooting our foreground action There was plenty of room for long-shots, for panoramic and dolly-shots, without exceeding the scope of our background-screens For reverse-angle shots, we simply turned our set around (though the 50-ton weight made it no small task), re-aligned the screens, and carried on with different backgrounds

Naturally, with a perfect background it was easy enough to coordinate the foreground action with that in the background If one of our actors missed, instead of having to take hours rounding up and re-positioning several thousand Indians, relaying commands by loud-speakers to twenty or thirty sweating Assistant Directors, we simply re-threaded the background-projectors, and tried another take—with perhaps two minutes' delay!

Making the sequence this way was far easier than doing it in the usual manner Unquestionably, it saved the studio time and money It was, I am told, the longest biggest and most dramatically important sequence that has ever been done entirely by the Transparency process But that is not the most important thing to me After all, I am in the business of turning out entertainment To be good entertainment, it must be convincing and coherent dramatically And filming the sequence as we did with "process-shots" I was able to make it better dramatically—more entertaining—than I could have hoped to in any other way Making sure that the background action was perfect, and then concentrating wholly on perfecting the foreground action, I was better able to weld the two components of the scene into a coherent whole Of course, as a producer I appreciate the saving in time and money, as a human being I appreciate being able to do it easier But the most important thing to a practical picture-craftsman is that the process-shot technique enabled me to do the job better That, to my mind, is the greatest real value of process cinematography

Frank B. Good, A.S.C.

Using Photo Meter to Balance Set Lighting

by
Frank B.Good, A.S.C.

USING THE PHOTO meter to balance light has become one of the major duties of my meter. Right exposure has always been the main purpose and to some people the only use to which a photo meter could be put.

It is natural, that if one can secure the right exposure reading he can also secure the right lighting balance with the use of these instruments. I have had a number of cases where it was absolutely essential to balance lights, because of freak conditions, by the meter. This holds true whether you are working on exteriors or interiors. Let's say you have a reading of f 3.5 on one portion of the set, your people read f 2 and some of the light bits of decoration go as high as f 5.6. It's a simple matter with the meter to change lights until you secure the proper balance, or if you are looking for high lights and shadows to work them out correctly with the meter.

Much more valuable, however, is the meter in reading people. The stars of the picture are the key to the production, of course, from this central reading we must balance the rest of our lighting.

One of the characters in a recent George O'Brien picture was being "burned up." He would photograph chalky white. He walked through a scene like a ghost. You'd spot him every time.

George O'Brien does not use make-up which means no other male character in his picture can use make-up. This rule must be enforced or the photographic quality of all other men compared to O'Brien would be too contrasty.

This particular "ghost" character was being lighted the same as all the other players, so I decided to study his face. I used my meter and secured a much different reading from him than I was receiving from the other male characters under the same condition. The reading was about the same as I got from the women's faces using make-up. This gave me my cue. I lit him the same as I lit the women and our ghost disappeared.

This is possibly an exceptional case as most players are made up and the photographic qualities of each are the same. However, another incident that showed me the value of a meter was a set up that took in the sky, two straw stacks and people betweeen the stacks. My sky reading was f 16, the straw stacks read f 22 and between the stacks people called for f 14. I wanted to bring my sky down with a filter, but couldn't do that very well when my reading for the people was lower. To offset these two readings I used more reflectors on the people to bring them up to f 16. The straw stacks were unimportant excepting as to atmosphere.

I had another instance where the meter helped me balance my light. All of the shooting was done in a heavily wooded location. I was using reflectors to relay light to the scene and the people. The day was cloudy and for long periods the sun would not come out, this called for booster lights. Here was the condition. One scene in the same sequence, and in the same set, was with daylight and reflected daylight, the next might be with booster lights. This is a condition that would give almost any director of cinematography heart failure and make him wonder if anything were coming out right. I used the meter for every shot and when I checked with the laboratory there was not 3 points difference in the printing light of any of the scenes.

Death Valley has proved a fooler to many. Here's what my record shows for some shooting we did there recently. At 9 A.M. my light was f 20, at 3.30 P.M. between f 6 and f 6.3 and at 5.30 P.M. between f 4 and f 4.5. I shot at those ratings and my negative was okay.

Sometime ago at the ocean the meter reading gave me f 6.3. The sun was shining, in fact, it was the typical clear day. Others on the camera shook their heads when I asked that the lens be set at f 6.3. They wanted to shoot down to f 22. To convince them, I had them make a hand test, f-6.3 was perfect, f 22 was burnt up.

I never take my readings from the camera. The meter

Continued on page 469

Producers Pool Composite Process Patents

by
William Stull, A.S.C.

FOR THE PAST several years, special-process cinematographers in every studio have made their "process shots" with one eye on their work, and the other figuratively focused upon the outcome of an intricate tangle of lawsuits and counter-suits involving the fundamental patents on the two most generally used methods of composite photography. Without going into the merits of these entanglements, it may be said that the Paramount Studio, through licenses, assignments, etc., controlled most of the basic patents on the color-separation transparency process, while Warner Brothers, and their subsidiary, United Research Corp., similarly controlled equally basic patents on the projected-background process. Both have made extensive use of both processes, and both appear to have felt legally justified in so doing. Moreover, both processes have been in general use in every studio in the industry. Regardless of the outcome of the lawsuits, the industry as a whole stood to lose heavily, for the damages for such widespread infringements, past and present, would inevitably reach staggering sums.

To eliminate this dangerous situation, Will H. Hays, President of the Motion Picture Producers and Distributors Association, suggested several years ago that a cross-licensing embracing all patents relating to composite photography would be a practical and beneficial solution. When the litigations had crept their way to the top of the court calendar, Hays acted vigorously to avert what, for either side would be a Pyrrhic victory to the detriment of the entire industry. From the member companies of the Association information was gathered concerning their patents in the field. Then last summer a memorandum went forward from Hays to the directors of the association, in which the situation was surveyed in detail, the obstacles to solution analyzed, and the alternatives for the achievement of a satisfactory solution presented. The Board of Directors signified their agreement in principle with the conclusions of the memorandum.

Thereafter the negotiations and the preparation of the necessary legal documents were directed by Gabriel L. Hess, the Association's legal counsel, ably seconded by W. E. Beatty of Warner Bros., Jacob H. Karp of Paramount, James Barkelew, and others.

The result is an agreement by which all suits have been withdrawn, with all claims for damages on past infringements waived, and all of the major studios have joined in a mutual cross-licensing arrangement under a total of 46 existing U. S. and foreign patents relating to composite photography. Unlike the highly restrictive licensing under the old Motion Picture Patents Company of unhallowed memory, the present agreement is planned to benefit the entire industry—the independent producer and process studio as well as the eight majors. In other words, the benefits of the plan will be available to non-members as well as to the present members, which include: Warner Bros. Pictures, Inc., and the Warner subsidiary, United Research Corp.; Paramount Pictures, Inc.; 20th Century-Fox Film Corp., RKO Studio and RKO-Radio Pictures, Inc., Metro-Goldwyn-Mayer Pictures Corp., Universal Pictures Corp., Columbia Pictures Corp.; United Artists Corp., Educational Film Corp. of America, and Hal E. Roach Studios.

By the terms of agreement, the members are licensed to use, royalty-free, any of the patents issued up to approximately October first, 1936. Any patents issued to or assigned to these firms in the future will, insofar as they relate to composite photography, be available. Licenses under these patents may be obtained upon payment of a nominal royalty, the figure in each case depending upon the cost of developing and patenting the invention.

Non-members may participate on a similar basis. Any reputable producer, including independent producing firms, independent special-effects studios, producers of industrial, commercial or educational films, and foreign producers, may obtain licenses under any or all of the patents involved. These licenses will naturally call for the payment of a reasonable royalty, but it is emphasized that these fees will not be prohibitive, as this is not a money-making scheme, but a simple, cooperative move to eliminate unintentional infringements and needless litigation. Moreover, the agreement specifies that the individual circumstances of each applicant for a license must be taken into consideration in setting the fees. Thus the small producer who wants to make a single process-shot in a single picture would probably pay on a different scale than the larger independent who wants a license to use the processes for many shots in a program of thirty or forty pictures. The licenses convey all possible rights to "make, use or sell" shots made under the patent, so the customers of a licensed special-effects studio would be amply protected. Moreover, in the event of any disputes between a patent-owner and an applicant, the agreement binds the patent-owning member to abide by arbitration conducted according to the standard procedure of the American Arbitration Association.

The agreement may very roughly be termed a pool of the patents involved, but one feature makes it unique. In a genuine pool of patents the ownership of the patents is transferred to the pool itself, and administered by a trustee, while in this case, each studio keeps all title to its patents. Accordingly, licensing is directly between the studio owning the patent, and the applicant, not through any centralized office.

The patents thus far included in the arrangement include Warner's contribution of 22 U.S. and 5 foreign patents, Paramount's 9 U.S. and 8 foreign, and several important applications for patents 3 from RKO, 2 from 20th Century-Fox, etc. Practically all of the studios have

Continued on page 466

John Arnold
A S C

Why is a Cameraman?

by
*John Arnold, A.S.C.

YOU CAN CALL him a Cinematographer if you like, or just plain Cameraman, but as long as you're making motion pictures, you'll always have to have someone around to photograph them. When the industry was young his was a relatively simple task, but then, in those days, the prime requisite for any studio position was a simple willingness to try the work. Today, while the debate as to whether our infant industry has or has not grown up still continues, it is pretty generally recognized that something more than mere willingness is required to hold any picture job. The man who designs sets is expected to know more than a little about architecture, the players, to have learned at least the rudiments of acting. Camerawork has become one of the most intensely specialized fields in the whole highly specialized industry.

The Cinematographer of today has become vastly more than merely a man who understands the technique of running a motion picture camera. He has become a specialist in the intricate art of making drama visible. And he has done this so perfectly that today nine out of ten of us take photography almost as a matter of course. We are confident that the pictured effect on the screen will fit the dramatic action of every scene.

Did you ever stop to think what would happen if this were not the case? Suppose, for instance, that a picture like "Romeo and Juliet," "The General Died at Dawn," or "The Gorgeous Hussy" were photographed like a comedy. It would have about as much romantic appeal as a newsreel — and we might confidently expect Romeo to do a comedy fall from Juliet's balcony! On the other hand, imagine a Marx Bros. comedy reaching the screen with the portentous shadows of Charlie Chan or Philo Vance mystery. Many of the choicest gags would fall flat because the mysterious lighting had hidden some mad Marxian antic.

Definitely, then, camerawork today has more of a meaning than just picturing the actors. And while each production and each scene has its own problems, there are certain established conventions in Cinematography, based on proven psychological reactions common to humanity the world over. If we are photographing a heavy dramatic situation, we strive for sombre, "low-key" lightings whose dark tones will heighten the sense of tragedy. If it is a melodrama, strong, virile contrasts between bottomless shadows and intense highlights not only aid in developing a response to rugged action, but etch the action clearly and swiftly to the eye. If the picture is cast in a realistic mood, like "Fury," harsh, almost newsreelesque photography builds an illusion of reality.

If on the other hand, the picture is a romance, softer, smoother photography builds subtly to an illusion of idyllic glamour. Lastly, if our picture is a broad comedy, camera and lighting must simply reveal a stage for the comics without trace of artifice or artiness, so that not even the smallest gesture, the slightest grimace, will slip by unseen.

Just keeping these things in mind throughout a picture is in itself quite an assignment, but the Cinematographer has more than this on his professional shoulders. No picture is going to sustain exactly the same mood throughout all of its many hundred scenes and set-ups. Even in the heaviest drama we have moments of romance, or of robust humor. If these scenes are photographed in exactly the same style as the rest of the picture, they would lose much of their dramatic value, on the other hand, if they are photographed for themselves alone, without consideration for the basic mood of the whole story, they would make visual changes which would distract audience-attention and make the picture seem spotty and disjointed. Properly balancing between the individual requirement of the scene itself and the sustained mood of the production as a whole gives the Cinematographer a greater problem than any faced by Director or Actor. When you see a story of many moods photographed so smoothly that you are not conscious of photography, rest assured you have seen the work of a master of the camera.

Now add to this problem the everchanging one of keeping the players consistently looking their best, and you have a problem only Einstein's mathematics can fully express. Saturday, our leading lady may be a vision of blonde loveliness, but Monday morning, after a weekend in the sunshine, she may appear on the set with a

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* Reprinted from Hollywood Reporter, 6th Anniversary number

Rudolph Mate, A.S.C.

Rudolph Mate---Cosmopolite of Cinematographers

by
Harry Burdick

RUDOLPH MATE is veritably a stranger within our gates. He has been resident in Hollywood for only two years, scarcely long enough to become acclimated in the minds of those rugged picture pioneers who ventured to this real estaters' haven a quarter century back. But in these two brief seasons he has catapulted to top-flight recognition among the cinematographic contingent.

Films of high-carat content, as "A Message to Garcia" and "Professional Soldier," flowed from his camera while at the Fox lot. Now, under the more sanctified sponsorship of Samuel Goldwyn, he has presented "Dodsworth" to preview and currently is speeding closing scenes of Edna Ferber's widely-read novel "Came and Get It" on to nitrate tape. An imposing parade of important productions! The brace of Goldwyn offerings average upwards of a million in cost.

"Dodsworth" is an intensely commendable cinematic composition. In it, Mate reveals one of the finest jobs of masculine lighting these apprising eyes have gazed upon in many moons. His fashioning of Walter Huston is worthy of inspection and emulation by all concerned.

Here, the rugged virile qualities so sought in male portraiture are superbly set forth in bold and unalloyed degree. Mate has resorted to no apparent trickery, no theatricalism, in achieving this acme of artistry. Its terrific simplicity is its greatest charm. Huston is treated in manner quite unlike the out-of-a-pattern male star. There are no tender nuances of modeling, no subtle highlights, no transparent effort at aggrandizement. His face, often as not, is in shadow. Facial linings that denote character are observable. The full strength of the man emerges through intervening processes photographic.

Au contraire, Ruth Chatterton is the more feminine, the more delicately glamorous, because of the brave and frankly obvious artifices of witchery he employs. She grows younger and more vibrant before your very eyes.

To gain some of these effects, Mate employs to fine end a small baby-spot of 500 watts suspended above and to the rear of the star. In small area it throws a brilliant highlight flicking the coiffure with vivid aura.

He also engages a dimmer in most of his close shots, controlling his direct light sources. As a character moves toward or away from the camera, he decreases or increases by a mere fraction the volume of light. This is unnoticeable on the screen, indeed, the very purpose of the expedient is to keep intensity of illumination constant irrespective of the distance of the player from the light unit.

Mate candidly confesses to having "no principles" in this business of lensing screen personalities for audience gratification. He is hidebound by no rules, regulations, precepts or dicta. He is supreme advocate of artistic license. To gain wanted spectator impression he tosses overboard any and all aphorisms.

He is actuated by the sole motive of fashioning artistic creations within the limitations of commercial showmanship specified by the industry of which he is a part.

He suffers no qualms of artistic conscience in composing these commercial-artistic creations. He points out that the true conception of artistic endeavor lies in rendering an object pleasing for witnesses to look upon. All great artists, he believes, have addressed themselves to their audiences. Even builders of great cathedrals reared structures deliberately designed to please onlookers' eyes.

He can see no shameful compromise in so treating a popular art that the greatest number of the audience will enjoy it most. So-termed pure Art, for Art's own sake, has little place in his broad cultural perspective. So he quite calmly injects all available elements of showmanship into his pictures, deliberately and with malice aforethought, which displeases his producers not one whit.

His greatest freedom of expression finds itself in feminine lighting. It is, as he puts it, his "concession to beauty." He doesn't go in for bizarre treatments, nor is he slave to mathematical formulae of design. But he will resort to any and every item of photographic artfulness to enhance the physical and romantic loveliness of his subjects. Audiences appreciate it, he finds.

Continued on page 469

A.S.C. MEMBERS ON PARADE

●**John Arnold, A.S.C.,** vacationing golf . world-wide rodio— getting acquainted with his children Resting most of the day so he can stay up half of the night logging new foreign stations on his Scott

●**Roy June, A.S.C.,** taking a few days off after 12 weeks steady shooting Breaking in his new car

●**Joseph Valentine, A.S.C.,** is said to have done a bang up job on his latest "Three Smart Girls" Also he just moved into his new home in Cheviot Hills They say there is a bit of Italian influence in the architectural scheme.

●**Chas. Rosher, A.S.C.,** about ready to return from London where he has been lensing some of the important releases

●**Merrit Gerstad, A.S.C.,** has been loaned to 20th Century Fox to shoot the talkie version of "7th Heaven."

●**Chas. Lang, A.S.C.,** looking the new cars over Salesmen take note

●**Bob Pittock, A.S.C.,** recently promoted to director of photography, is at Big Bear on the Major Production "Mind Your Own Business"

●**Lucien Andriot, A.S.C.,** has signed with 20th Century Fox as has Eddie Cronjager, A.S.C.

●**Joseph DuBray, A.S.C.,** who for the past six years has been executive manager of the Bell & Howell Hollywood branch will be assigned a position in Europe by the same company shortly after the 1st of November

DuBroy leaves Hollywood on Nov 1st for a stay in the Chicago office of Bell & Howell Later he will depart for London and other European points in the interest of that company

DuBray will be succeeded by H W Remershied who has been in charge of the engineering division of the Hollywood branch

●**Gregg Toland, A.S.C.,** planed to New York for a brief vacation after finishing camera work at Goldwyn's of "Beloved Enemy" with Merle Oberon Upon his return he will direct photography on the new Miriam Hopkins opus "The Woman's Touch"

●**Hal Rossan, A.S.C.,** former husband of Jean Harlow, was married on Sunday, October 11th at Goldfield, Nev., to Mrs Yvonne Crellin

●**Charles Van Enger,** one of the Charter Members of the A.S.C., who has been making pictures in England for several years past, hopped 'cross channel to have a reunion with another old-time A.S.C. member, Rene Guissart The occasion was the production of a French feature, "Mendiamantant," at the Paramount Studio in Joinville Van Enger photographed and Guissart directed The combination clicked so successfully the two are booked to start another right away

●**George Barnes,** one of the A.S.C.'s newest bridegrooms, is back at the studio after a brief honeymoon

●**Len H. Roos, A.S.C.,** postcards from Switzerland, where he is shooting travel films in color for Warner Bros. So far he has lensed Sweden, Norway and Holland—including on our trip up past the Arctic Circle to get some scenes of the Lapps His next stop is Hungary to eat goulash and film Czardas (or is it the other way around?). From there to France, French Africa, Singapore and Java by way of Ceylon, and Lenser Len will be back in Hollywood after his 'steenth trip round the world.

●**"Tony" Gaudio, A.S.C.,** is grinning from ear to ear account of he's just found an ace gardener to tend his San Fernando Valley estate After hiring and firing three Italianate compatriots, Tony found himself an Englishman who is making the Gaudio menage as beautiful as a novelist's idea of a Ducal Estate

●**Karl Freund, A.S.C.,** has shed forty pounds, and inches of waistline according to reports

●**Victor Milner, A.S.C.,** has a really secure vacation hideout With Cecil De Mille's "The Plainsman" safely in the box, Milner made a bee-line for his yacht, to rest in the cradle of the deep till his next assignment comes up Book-agents and studio calls take notice Milner's address is "c/o Yacht 'Marvic', somewhere in the Pacific Ocean"

"As it must to every man--- Death came to" CHARLES J. DAVIS, A.S.C.

● A brief dispatch from Washington, D. C., tells us that Charles J. Davis, A. S. C., who was with the Fox Movietone News and had covered many of President Roosevelt's trips, died at Georgetown Hospital where he underwent an operation ten days previously Details as to the immediate cause of his passing are not available

When Davis died he was 44 years of age He had been a member of the American Society of Cinematographers since 1926 Previous to that he had been a cameraman with Vitagraph from 1915 to 1920 In the latter year he went to London for one picture then returned to Vitagraph In 1926 he joined Warner Bros., in 1928 he became a member of the staff of Fox Movietone and spent a year in England, returning in 1929 where he has since been stationed in Washington, D.C., considered one of the most important assignments in Newsreel work

Members of the American Society of Cinematographers deeply regret his passing and have had a suitable resolution spread on the records of that organization to commemorate his memory

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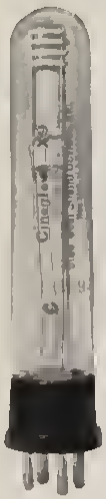

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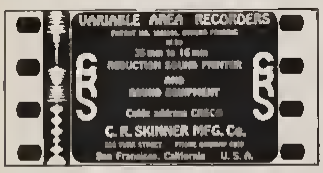

Producers Pool Composite Process Potents

Continued from page 461

other applications pending, which will in time be included The more basic patents are duplicated in British, French, German and other issues

Among the more basic patents included may be mentioned U S patent No 1,673,019, which is regarded as the fundamental patent on the color-separation transparency process It provides for making a dye-image transparency from any desired background negative This transparency is run through the camera in front of the unexposed negative which is to record the final, composite scene The foreground action is illuminated by light of substantially the same color as that of the transparency Behind the foreground set and actors is a plain back-drop which reflects light bearing a minus relation to the color of foreground lighting and transparency, i e , if the one is red, the other must be blue, etc

In actual practice, there have been quite a number of variations in detail in this process, many of them patented Most commonly, the back-drop is blue, and illuminated by white light, while the transparency and foreground lighting may be red, orange-red, or yellow One patent, for instance (No 2,013,886) specifies an ultramarine blue ground and a yellow transparency In any event, the transparency is, as its name implies, transparent to the similarly-colored light reflected from the foreground action, which passes freely through it and forms an image on the film in the usual manner On the other hand, the colored image of the transparency is virtually opaque to the oppositely-colored light reflected from the backing, which accordingly imprints a negative image of the background-plate wherever no direct light from the foreground interferes The result is a composite negative, in which the foreground action appears naturally superimposed on the background scene or action

At least eight other U S patents included relate to important details of this process—clearing the highlights of the transparency (No 1,926,722), light filters for use with this process (1,939,304), color-correction to increase the blue-light transmission of the clear portions of the background plate (1,776,269), and so on

The projected-background process is as simply covered In addition to the Brainerd patents, which many consider were the fundamental patents on this process, there are numerous more recent issues covering specific details of equipment and methods U S patent No 1,960,632, for instance, covers the mounting of the translucent screen upon which the background is projected U S patent No 1,980,806 provides for synchronously interlocking the foreground camera and the background projector. Patent 2,004,992 provides for making start-indicating marks on the pull-down mechanism of the camera, and making them visible on an indicator on the outside of the camera, which in turn can be seen through a window in the blimp No 2,008,020 relates a useful method of focusing the background-projector from the camera position, by an electri-

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col remote control Patents 2,004,986 and 2,004,987 provide for changing the background field between projection-process close-ups and long-shots, to maintain a natural continuity of perspective in the composite shots No 2,014,435 covers the making of vehicle shots by the background-projection method, setting the vehicle in its proper relation to background scene and taking camera by placing it so that the taking camera bears the same relation to it that the camera used in filming the background scene did to the vehicle in which it was carried Patent No 2,030,-300 provides for a background more extensive than is possible normally, by using a plurality of screens with interspersed scenery Finally, a most important and sweeping patent is No 1 971,-137, which provides for combining any previously photographed background action and any previously recorded background sound with foreground picture and sound, the composite pictorial negative to be made by any desired process, and the composite sound record to be made by any desired method or combination of methods of direct recording, re-recording, etc

A number of more or less allied patents on other types of special-effects work are included, among them several interesting patents on special forms of miniature-shots, "glass" shots, and the like Some of them relate to methods familiar in every studio, others, to methods used only in the studio of their origin, and little known elsewhere In this class is Patent No 1,737,021, which is in general daily use at Paramount, but seldom mentioned elsewhere It provides an excellent method of making "glass shots" after the development of the original negative, which may be photographed in the usual manner A duplicate negative is made, with the areas in which the additions are to be made matted out A test-strip of this negative is exposed to a regular pattern of lines or rulings and developed This frame, with its superimposed rulings, serves as a guide in preparing the painting or miniature to be added to the normal parts of the shot, and also as a guide in registering the two elements for the final exposure The hitherto undeveloped first exposure on the duplicate negative is then re-exposed to make the final composite negative

Another composite method of at least technical interest is outlined in patents No 1,755,130 and 1,755,129, and provides for making first one exposure, then treating the film so that the exposed areas are impervious to further exposure, resensitizing the remainder, and re-exposing to complete the composite shot

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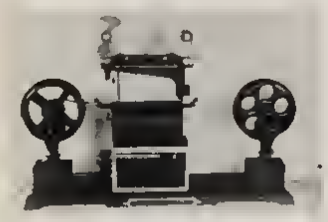

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How this plan will work out in the future cannot be foretold If it is accepted in the spirit of those who planned it, such an arrangement cannot but be beneficial With the fear of unwitting infringements gone there should be a more free interchange of thoughts, and much development work, hitherto shackled by this fear, should go ahead to a successful conclusion Economically, the studios should be more willing to spend money on such necessary development work, since not only will a successful patent no longer be a mere title to an expensive lawsuit, but the cost of development will to a great extent be offset by royalties on the process paid by the industry at large This fact should be a notable spur to individual progress among the various special-process departments Lastly, the security granted by this cooperative plan should eliminate much of the foolish secrecy that has so long shrouded special-effects cinematography. If, as intended, the plan brings security and cooperation without removing the incentives of competition, progress in all lines is bound to result

WHY IS A CAMERAMAN?

Continued from page 462

pinkly glowing sunburn—or even a tan Our leading man, too, may turn up showing the results of a strenuous week-end Yet the scenes these two enact Monday may, in the finished picture, come but a split-second after the pre-week-end scenes shot Saturday And it is up to the Cameraman to see to it that they look exactly as fresh and youthful in one scene as in the other!

Many of our players have lately developed a habit which makes no end of trouble for the Cinematographer, and discomfort for themselves This is the fad of wearing dark-tinted glasses whenever the player goes outdoors Admittedly, this is comfortable, for the dark glasses protect the eyes from the sunlight But what happens the next time our player has to face the lights on the set? The eyes which once accommodated themselves quickly to the glare, have lost their power, since it has so repeatedly been done for them by the goggles Naturally, the strong light hurts the player's eyes, and there are complaints all around After all, Max Schmeling didn't train the right hand that laid Joe Louis low by wearing it in a sling fest he strain its muscles Our eyes accommodate themselves to changes in light through a network of nerves and muscles which must also be trained and strengthened—and which grow weak if coddled So why should people whose livelihood depends upon looking under studio lights weaken their eyes by hiding behind dark glasses?

Often enough you will hear a Director, discussing Cameramen with whom he has worked, say "John Doe is fast—quick as lightning, but Bill Speed who did my last picture, is slow as they make 'em" Yet if you ask the men in the camera-crew, they might give an entirely different story Bill Speed, they'd tell you worked faster than they had thought possible, for the picture was full of the trickiest kind of dolly-shots, crane-shots, and effect-lightings John Doe, on the other hand, had a soft snap and took his time over everything, for there was nothing intricate in the script, and the Director and Producer didn't call for anything fancy

By the same token the same Director of Photography can seem slow and fumbling to one Director, and a deft, speedy running-mate to another The answer here is that Director number two not only knew always exactly what he wanted, but knew how to convey his thought to the man at the camera, while Director number one was perhaps too sure, and left the Cameraman to work blindly, hoping he had caught the right meaning of the few vague remarks thrown his way It is a safe bet, too, to assume that Director number one, when in doubt of anything, usually resorted to a dolly-shot, and kept the camera jittering all over the set without rhyme or reason Nine out of ten of those moving shots undoubtedly were either left on the cutting-room floor, or chopped up into their component, stationary parts The moving camera is a great thing in its proper place, but that place should not be to cover up indecision, or to impress the front office After all, moving-camera shots take a lot of time to light, time to rehearse, and more time to make—and they use up valuable screen time in the finished picture Time, in any man's studio means money, and every second or dollar spent in production that doesn't show up in the release-print means a waste of something that could have been spent profitably elsewhere The added time needed for moving-camera shots is simply chalked up against the Cameraman A statistician would find it highly illuminating to study the moving-camera shots in any average picture, calculating the time and overhead that go into their making, and balancing it by a count of how many of them are to be found in the release-print

Yes as long as we make motion pictures we will probably have the Cameraman— or Cinematographer— or Direc-

tor of Photography — with us And while he is too busy attending to all the details of his ever-growing task to talk about himself or to hire a publicity-man to do the shouting for him, the Cinematographer is visibly growing in professional stature Camerawork is no longer a job for anybody, nor even for just any skilled photographic mechanic The Cinematographer of today is in truth Director of the film's photography, and as such he is becoming a real co-worker with the Director o man whose ideas, as well as skill, are recognized as vital to the making of good pictures After all —believe it or not—we ore in a photographic business

Using Photo Meter to Balance Set Lighting

Continued from page 460

takes in too much territary In production work we are interested in the people and mainly in the faces of the people I read the faces I stand close enough to each important actor with my meter to get a reading of the face, only as it is going to be lit for the shot That's my first reading I read the floor, the furniture and the walls By reading the light all over the set I know what part is being overlit and what part is being properly lit in relation to my people I take away or add lights depending upon what the meter reading calls for

I can balance my lights with the meter so that my exposure will be even throughout the set, also with the meter I can determine just how much some section is highlighted it that is the effect I want or how dense another section might be if I am looking for shadows

I have noticed cameramen using the meter from the camera and taking that as their reading Invariably the exposure will be wrong as the light influencing the meter cell is coming from too wide an angle Production demands the camera favor the people_ therefore it is logical that the people be read If they are wearing clothes that demand accentuating, read the clothes and you will find a happy medium in your exposure that will be correct

Cosmopolite of Cinematographers

Continued from page 463

A rare cosmopolitan camera experience lies back of Mate's current cinematographic contributions He is Hungarian born in Poland educated in France Since 1919 he has directed photography in Austria, Hungary, Germany

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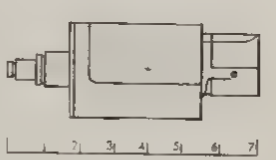

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Two years back, he came to Hollywood on a visit He fell ill was forced to decline an awaiting French contract Harry Lachman, director, with whom Mate had made many Continental productions prevailed upon him to do a picture Mate consented His rich background of old-country culture became a welcomed addition to Hollywood's talents

What are the main points of difference between studio practice here and in other countries? Mate mentions two of them. One is the higher degree of perfection of our technical equipment The second is the, to him, amazing technical proficiency of our studio staffs Grips, even, are "magicians" And so on up the line

Production moves ahead about as rapidly there as here, but with this important difference There, more of the time is devoted to mechanics of the scene and less to the actors, here, so efficient and organized are the mechanics that for greater time is available for finer touches of lighting and consideration of the players

More specifically, he mentions the interchange of ideas and experiences among fellow cinematographers as crystallized in the American Society of Cinematographers No such friendly spirit of co-operative endeavor exists elsewhere Here, it makes for better pictures, greater individual accomplishments, speedier advancement of the industry

And to these cinematographic confreres who so freely steered him safely through the hazards of his first Hollywood days, Rudolph Mate is warmly appreciative He hopes to make still better pictures if only in tribute to this fraternal feeling

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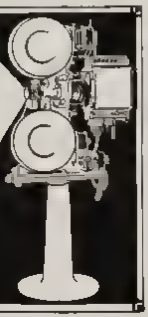

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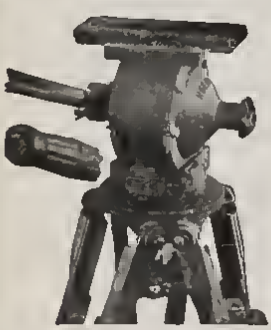

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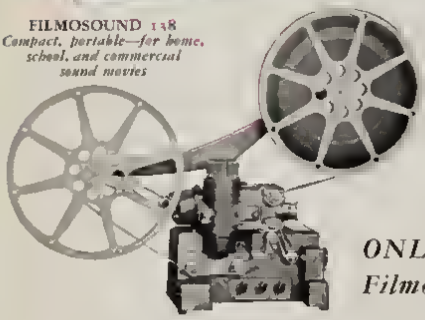

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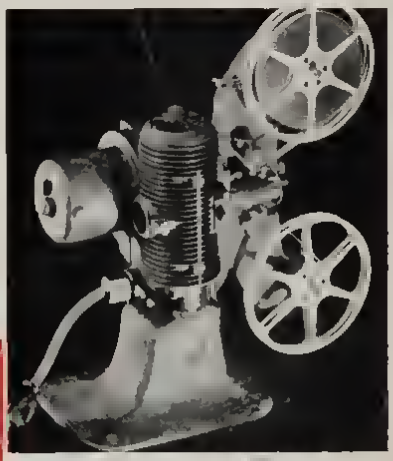

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Next Month . . .

• We will give you another in the series of articles on what the professional cameraman does with his 16mm and 8mm camera This month Charlie Clarke reveals his secrets

• Another thriller with the newsmen Many of the amateurs use their cameras for news events mainly here the newscameraman tells you how he gets the news as well as pictures there are thrills in them

• The Biggest News will be in the January issue We will give you the winners of our 1936 Annual Contest Send your film in now, it must reach us by November 30th

The Busman Goes for a Holiday Ride

by
Charles Clarke, A.S.C.

Charles Clarke, A.S.C.

TO AN AMATEUR movie maker, I presume it seems like the traditional busman's holiday or as a letter-carrier going for a walk on his day off. I mean, a professional cinematographer devoting six days a week to studio lensing and on his day of leisure stirring about with a personal cine-camera. But the two phases of photography, though linked by a common bond of celluloid, are not identical.

Studio shooting is as the novelist writing for publication. Using my smaller camera is more like personal correspondence or intimate note-making, or even—God forbid!—diary-keeping.

Beyond doubt, my studio cinematographic career has influenced my off-set camera work. Not so much from a technical standpoint, but in the range of photographic subjects. Seldom do I film individuals, not even within the family. I suppose that is because I do so much personality portraiture at the studio. And on location, whether on this or on other continents, I never film what we term production material.

So, in browsing about into new fields I find much photographic relaxation. I'm just a bit choosy as to what I shoot. Mine is not an elaborate film library but what I have is, I believe, well selected, well edited and fully titled. Mainly it is scenic and travel memoranda of my travels. It takes in China, Mexico, Tahiti, and many of the picturesque spots in this country. Some is in color, some black and white.

Many amateurs have asked me the not unnatural question, "What do you studio cinematographers think of amateurs' cameras? Do they seem like toys compared with your intricate instruments?" My answer always is, and I think all Directors of Photography will agree, the amateur camera merits high esteem. Most assuredly it is not a mere toy.

In many respects it is a more exacting job to get perfect work with a small camera than with a large one—but not because of any shortcomings of the camera. At the studio, generally speaking, every scene is developed individually or at least in accordance with its individual requirements. Compensations can be made for over- or under-exposure. There is also considerable latitude in printing from negative to positive to obtain the precise image desired for the screen.

But with reversible film, these manipulations are not possible. You must hit the exposure squarely in the camera. What you shoot, you get on the screen. Amateurs are forced to be far more exact in exposure than are studio cameramen, newsreelers or others using 35mm negative and laboratory development. In fact, I have frequently used my personal camera to double-check light values from which my professional camera was set.

To off-set this apparent handicap, the amateur's lenses are more flexible and purposely have more lee-way. Our lenses are so scientifically correct that the merest fraction affects them. But the makers of amateur cameras thoughtfully provide lenses that take care of reasonable margins of error.

On the topic of lenses, I can offer a suggestion if you have or are contemplating purchase of a three-lens instrument. Standard equipment is usually a 25mm., and a 2-inch and a 4-inch lens. Instead equip with a 15mm., a 25mm., and a 4-inch lens. I have all four sizes and almost never do I use the 2-inch. For average shooting the 15mm. and 25mm. lenses answer the purpose perfectly. Particularly do I like the handy 15mm. It gives excellent perspective and permits getting composition results not had with longer lenses.

Continued on page 488

Adding Sound to Sight on 16mm

by
S. R. Barry

HOW IS SOUND ADDED to silent films? And what does the immediate future hold for the amateur cinematographer who desires to make talking pictures? Are "home talkies" just around the corner for the amateur? Probably no set of questions is more generally discussed in cine-amateur circles

For answers to be reasonably exact, it is needed to understand the methods of handling sound film that have been perfected and are available at the present stage of development

The simplest to grasp is the procedure followed by studios in shooting dialogue productions The camera takes the picture Dialogue is picked up by a microphone on the stage, wired to a recorder and there translated into terms of light to be photographed on film Camera and recorder are synchronized as to speed, pictured action and sound must necessarily be in synchronization when filmed on picture and sound negatives

But in many types of film, this simultaneous taking of picture and sound is not physically possible, as, travelogues newsreels, and similar reels of topical nature Here the spoken word is not so much the voice of a pictured character as the commentating voice of an unseen, off-stage narrator Indeed, the accompanying narrative may have been, and probably was, recorded in a studio many miles from the site of picture taking and on a much later day Herein lies the great utilitarian value of the so-termed double track system of handling film sound The picture can be shot, edited and cut as a unit It may be assembled from film footage obtained at various times and places Mainly, this picture is assembled just as a silent picture is —to stand on its own feet as a complete item of entertainment

The sound track may likewise be made up of "shots" taken at various times and places, not necessarily the same as the picture's, and assembled into a unit which contributes to the added entertainment content of the finished reel

The single track system does not appear to have this versatility Picture and accompanying sound are photographed as one unit Under practical production this is not always possible nor advisable

Let us take as an instance, the travel or scenic film you viewed at a theater last evening, or a newsreel

The individual scenes may have been selected from contributions from several cameras functioning in widely separated localities When it comes from the cutting room it is the picture reel as you see it Now it goes to the sound recording laboratories

First it is screened many times to get the feel of the subject and to determine the sort of voice and sound effects needed to complete it Then, each scene is measured A list is compiled containing the itemized scenes and the footage of each

From this outline, the narrative and sound-effects plot is worked out Narrative is prepared to provide the desired explanatory or amusing element Some commentators can talk as fast as 200 words the minute and upwards, preserving clear, sharp diction This is almost too fast for audience comfort

Radio broadcasters talk about 125 words the minute Rate of the average political radio address is around 100 words the minute For films, a safe average is from 120 to 135 words the minute Words are written into the narrative in number to exactly fit each scene Thus, at projection speed of 90 feet the minute in 35 mm and a speaking speed of 135 words the minute, it is reduced to the rate of 1½ words per foot A 10-foot scene will have 15 words and so on

In a soundproof recording-projection room, the projector is synchronized with the recording camera Following rehearsals to perfect his timing, the commentator reads his words into a microphone as the scenes pass before him on the screen In this manner, the sound track fits the picture in perfect synchronization Extra sound effects and music may be added at the time, or inserted during a re-recording of the narrative sound track

All is well if the commentator gives a perfect performance But, as you have heard on your radio, there is many a slip between eye and lips Words may be slurred, or stumbled over, or pronounced incorrectly Graham McNamee, commentator for Universal News, once called motor fuel "gasoloon" and referred to a former President as "Hoobert Heever"

In such event, the commentator is called upon to again record the faulty word or possibly the entire sentence or paragraph The cutter takes this correction and cuts it into the sound track Cutting sound is a delicate operation Yet experienced cutters can read and cut sound vibrations as readily as you cut picture film Putting sound back of 16 mm film is basically the same procedure, with slight variations You edit your film, measure the scenes and write the narrative of wordage to fit

Unless you have the required equipment, which is expensive, and the knowledge, which is very technical, it will doubtless be better at the present stage of the game to take your picture and script to a recording laboratory

In Hollywood, operating under the guns of Hollywood studios, Art Reeves, of Hollywood Motion Picture Equipment Co., has installed special equipment of his own design for handling this specific kind of work There are other such laboratories in other localities

If your picture is on negative, the narrative must be recorded on sound track negative Picture and sound negative are then printed on one positive for projection

If your picture is on reversal film, recording must be on reversal film Positive picture and positive sound track are put on the one projection positive by the dupe-ing process

The sound track occupies the space at one side of the film usually taken up by sprocket holes The sound film in 16 mm has perforations on one margin only and sound projectors are made accordingly

Continued on page 491

Camera Movement as an Aid to Continuity

by
Guy L. Wilky

HISTORY FAILS TO perpetuate the courageous cinematographer who first moved a motion picture camera during a scene Nowadays, camera movement has been developed to a useful item of production technique It can be seen in almost every production It serves a definite function in cinematic construction As such and within the mechanical facilities available to the amateur, it has place in personalized picture production But, like all branches of the art, it must be understood if it is to be employed gainfully The fundamentals of the technique as evolved by studio cinematographers are basically applicable to amateur efforts

Early cameras were crude and clumsy affairs They rattled and wabbled Pioneers quickly saw the undesirability of this form of camera movement which, alas, is today visible in cases of hand-held amateur shots They roped, wired and chained the cameras to solid platforms

Then came the portable tripod, made increasingly sturdier to provide rigid support Films in those infancy days consisted mainly of a series of chases One day, an enterprising soul placed a camera on a rheumatic gasoline buggy for the first follow shot It was an easy step to a small wheeled platform, or dolly—and camera movement came into common practice

This in addition to the panoramo and tilting shots which were devised at a very early age in camera development

As undernourished as camera work was at the time, several basic points were established which survive to this day and which are valuable for every amateur to keep well in mind It must be remembered that studio cameras were then turned at the rate of sixteen frames the second, as are most amateur cameras today Present "sound speed" is, of course at the faster twenty-four frame pace

When panning or tilting the camera, movement must be slow, steady and even In fact, there is a limit beyond which this speed can not go without making a jumpy effect on the screen The illusion of moving pictures is attributable to what is known as "persistence of vision" The eye retains the image of one projected frame until the next one flashes to view If too great distance separates an object on succeeding frames, the object does not appear to move normally but to leap in staccato fashion

Similar unpleasant results come from shooting a follow shot from a side, point-blank angle That is, filming a galloping horse from a moving point abreast of him The background hopped along jerkily as in a too-fast pan, and for the same reason

Even with the faster "sound" shutter speed, this uneven effect maintains That is why all such views are taken from camera positions ranging from head-on to three-quarters Likewise with panning shots Angle of camera line of photographed action is under forty-five degrees, not over

These camera movements were conceived in order to keep fast moving action on the frame for a longer time and so make the thrilling chases more vivid It was strictly photographic effect Dramatic or other factors were not yet considered

In 1926, from the German UFA filmery came a sensational picture It was "The Last Laugh" and for the first time a motion picture camera was "on a bicycle." It followed Emil Jannings wherever he went The camera was not stationary for even a moment. This bewildering demonstration of camera mobility spurred the inventive imaginations of Hollywood cinematographers and we were treated to pictures that left us dizzy trying to keep up with the dancing lenses

The camera craft was struggling for a new technique and from these wild adventures has came a procedure that is now quite generally accepted

First is the prime precept that any camera movement should be controlled by the situation rather than freak situations evolved merely for the purpose of causing cameras to be rolled about There must be a sound reason for every camera action In case of doubt don't move it!

Disregarding the freak camera angles and effects gained by mounting cameras on cranes, booms and other involved machinery which are interesting in mammath production or spectacle stories, there is one generally employed practice which the amateur can adapt.

It is the expedient of moving camera towards or away from a scene, shifting from a long shot to a medium shot, or vice versa, without resorting to an abrupt cut

The set, let us say, reveals a breakfast room interior with husband and wife entering to partake of their morning repast accompanied with plot-opening dialogue A long shot is called for that the locale may be registered Next is a medium shot focusing interest on the two players This can be accomplished by a new camera set-up and a direct cut in the editing Or, it can be done by moving the camera forward from the long-shot set-up to the medium-shot set-up Focus is followed by adjustment as the camera moves nearer its subjects The result is a smoother flow of continuity, a less abrupt transition from one perspective to the other It is a natural effect for the eye to comprehend The actors merely grow larger on the screen

One cardinal rule to follow is—don't move the camera in on still characters Have some corresponding physical action on the scene In the breakfast room instance, camera movement is performed as a butler enters, a maid brings in mail or another member of the family makes belated appearance at the table This makes for a more graceful camera move and one not so glaringly noticeable to the audience.

These approved varieties of camera mobility are within the range of amateur production No elaborate equipment is needed A child's coaster wagon or tricycle makes an acceptable dolly or camera perambulator Wheels should be of good diameter, the larger the better, so as to take

Continued on page 490

Newscameraman Fred Felbinger at the camera and Soundman Robertson doing the mixing

Newsreeling on a Presidential Campaign Train

by
Fred Felbinger
Paramount News

RIDING WITH A presidential nominee and his entourage is about the next thing to being a member of a circus train that is barnstorming out in the sticks and making all the tanktown one night stands, except, we stop oftener. The act we cameramen put on at each stop is worse than six shows a day, under any big top that's made the circuit.

After boarding the campaign special, they hand us a mimeographed itinerary sheet listing all the stops, where the candidate is to make his usual three minute "back-porch" speech. There are about ten stops a day, besides the final evening stop for the big speech.

For the "protection coverage" we have to jump off at each stop with the silent outfit, battle our way through a huge crowd of political formers who have driven in "to get a look at their man." We finally manage to shove our way over to a box-car on a siding and climb atop it for a high shot of the crowd being addressed by the nominee, and just about the time we get a few feet of film and our breath back, the engineer toots the whistle twice. The way the cameramen and photographers scramble off the roof of the box-car and dash for the moving train, beats any trapeze act you have ever seen in the big show. So far, we have only had three casualties on the train but we have only been out two nights. The A. P. man fell off a roof at the last stop but he broke his fall, by landing on the back of a rugged prairie former, so the bruises were minor. One of the newsreel boys tripped over an open switch and tore his knee open, but the campaign train waits for no one.

The nominee carries a complete office personnel, with mimeograph machines and all other necessary equipment to keep the newspapermen and cameramen informed at all activities, stops, speeches and prominent people aboarding the train. Most of the prominent politicians that board the train, prove a headache to the cameramen. In the make-up of the train, the railroad carries a day coach next to the nominee's private car. After every stop the presidential candidate comes up forward to meet the local bigwigs. These small politicians will yell and clamor to get a close-up of them shaking hands with the big chief. After one week on this anyone of the cameramen is prepared for any diplomatic post that may come his way. You have to be a heavyweight politician and diplomat to turn these birds down. And the cigars these favor-seekers are handing us are terrific.

Between stops we work on the speech copy for the big night rally. We try to cut it down to a minimum amount of footage, without losing any of the highlights or meat of the address. This calls for reading and rereading until we have practically memorized some ten pages of political gunfire. After getting it down to approximate size, we seek out a few of the big political writers, riding on the train and get their reaction to the parts we have selected, also ask them what their leads are going to be on the speech. Frequently, to our chagrin, we discover that we have gone lightly over, or passed up some important paragraph, which means re-editing the entire thing. After we finally have the thing under control, we packet the marked copy as a cue sheet for the night's coverage, only to receive a wire from the home office, an hour before the speech is delivered, advising what paragraphs are wanted. This means changing the thing all over again.

Behind the locomotive we carry a baggage car which houses all our big 10-KW searchlights, which we use for lighting up the hall on the big speeches, also a complete generating unit, in the event it is necessary to generate our own juice. We also have an advance man, who travels ahead of the train. He arranges for the sound hook-ups, camera platforms etc., as we arrive at the destination at

Continued on page 491

A Father-and-Son Scenario for Your Camera

by
Barry Staley

OF THE SCREEN "teams" available for casting in domestic dramas, none is more deservedly popular among cine-filmers than the lensed combination of father and son. The eternal difference in outlook on life of the two generations is ever a fit subject for story-telling, on paper or film. And, in conformity with well-laid rules of comedy situation, youth must be served with father the amiable target for the youngster's guile.

Here is outline for such a theme. Its requirements are simple both as to locations and props. It may readily be embroidered with such additional characters or incidents as your own facilities or imagination shall dictate. With the hunting season now with us, many ramifications will present themselves particularly if father is a gun addict.

MAIN TITLE—SHARP-SHOOTER

SCENE 1—MEDIUM SHOT. A clay pigeon, as used in trap or skeet shooting, sails through the air. At the top of its flight it is shattered to bits.

SCENE 2—LONG SHOT. In your back yard. Father is lowering Son's air-rifle from his shoulder. Son and a Playmate applaud the shot.

SCENE 3—MEDIUM SHOT. Playmate takes another clay pigeon, holding it far the camera an instant for us to identify it, and tosses it in the air.

SCENE 4.—CLOSE SHOT of father with rifle. He watches Playmate spin the pigeon in air, quickly puts rifle to shoulder, eyes the sights, pulls the trigger.

SCENE 5—MEDIUM SHOT. The clay pigeon soars, bursts to pieces as it is hit.

SCENE 6—MEDIUM SHOT. Father lowers the rifle to Son's applause, hands it to him.

SCENE 7—CLOSE SHOT. Son with rifle at shoulder squinting along the sights.

SCENE 8—CLOSE-UP. Of the rifle—shooting along the sights as the eye sees them when aiming.

SCENE 9—MEDIUM SHOT. Father at Son's side is instructing him in use of rifle. Points to empty tin can on grass as a suitable target.

SCENE 10—LONG SHOT. Son runs to side of Playmate and whispers to him.

SCENE 11—CLOSE-UP. Son whispering instructions into Playmate's ear. Playmate listens attentively, his face breaking into a wide grin.

SCENE 12—LONG SHOT. Playmate leaves the yard hurriedly as Son leasurely picks up the indicated tin can and proceeds with it to the back fence. It must be a solid board fence or thick hedge.

SCENE 13—MEDIUM SHOT. From a high angle straddling the fence and showing both sides. On the one side approaches Son with tin can. On the other, crawling along so as not to be seen from the yard is Playmate. He takes a thin stick and holds it erect at the fence. Son carefully balances the can on top the fence, with Playmate's stick inside but unseen from the front. Son turns from the fence.

SCENE 14—MEDIUM SHOT. Father with rifle awaiting the target to be placed. Son runs in to join him.

SCENE 15—CLOSE-UP. Father aiming the rifle.

SCENE 16—LONG SHOT. Father, with Son at side looking on, shoots the rifle.

SCENE 17—CLOSE SHOT. Playmate crouching behind fence, peeking through crack, stick in hand. Suddenly he yanks the stick back and the can goes flying from the fence.

SCENE 18—LONG SHOT. From in back of Father. The tin can target goes flying off the fence. A perfect hit! Son is wide-eyed in his admiration, runs out.

SCENE 19—MEDIUM SHOT. The family trash box. Son comes in, rummages about and exits with a tin can of quite small size.

SCENE 20—CLOSE SHOT at the fence. Son enters and again carefully balances can on fence top but with Playmate's stick concealed inside from the rear. Son leaves towards Father.

SCENE 21—MEDIUM SHOT of Father leveling the rifle. Son joins him as Father aims.

SCENE 22—CLOSE-UP. Father intent on the sights, finger squeezing at trigger.

SCENE 23—MEDIUM SHOT of Father pulling the trigger.

SCENE 24—LONG SHOT. Father and Son in foreground. The small can bounces off the fence. Father is pleased, Son happy.

SCENE 25—CLOSE SHOT. Son indicates to Father a tiny target about the size of a dime. Father extracts dime from trouser pocket and hands it to Son, who scampers fenceward.

SCENE 26—CLOSE SHOT. At the fence from the high angle. Son races in, dime in hand. Reaching high over fence, he proudly displays it to Playmate who grins from ear to ear. The conspiracy is progressing. Son manages to prop the dime up on fence, leaning it against Playmate's upright stick. It looks as though it were inserted in a crack. Son leaves toward Father.

SCENE 27—MEDIUM SHOT of Father preparing to do an Annie Oakley at the dime as Son comes in and joins him expectantly.

SCENE 28—CLOSE-UP. Father shoots.

SCENE 29—CLOSE-UP. The dime. It is a clean miss.

SCENE 30—CLOSE-UP. Behind the fence. Playmate, grinning, holding dime firmly an end of stick. He presses an eye to his crack.

SCENE 31—CLOSE-UP. Father's face showing his surprised disappointment at missing the shot.

SCENE 32—CLOSE-UP. Son's face, sympathetic but revealing a sly pleased grin.

SCENE 33—MEDIUM SHOT. Father again aims and shoots at the dime.

SCENE 34—LONG SHOT. From over Father's shoulder. The dime is still on the fence. Another miss.

SCENE 35—MEDIUM SHOT. Father perplexed at his

Continued on page 489

Dan Clark, A.S.C., and Dr. Defoe

Shooting Quintuplets on the Wing

by
Daniel B. Clark, A.S.C.

THE DIONNE QUINTUPLETS are growing up! There's no doubt about it. Six months ago I photographed five little toddling infants for "The Country Doctor." I have just returned from photographing, for "Reunion," five husky chunks of girlhood with the spirits, verve and ground-covering abilities of thoroughbred pala ponies.

Due to the tender age of the girls and the terms as stipulated in the studio's contract with Dr. Defoe, the assignment turned out to be one of the most difficult filming tasks for director and cinematographer that I can recall. The little rascals wouldn't stay put before the cameras and with the full mischievousness of their twenty-eight months evinced firm determination to perform exactly the opposite of the directorial requests conveyed to them through their nurses.

One child of that puppy-ish age is hard enough to photograph in required action. Five of them makes the job not only five times as strenuous, but well nigh out of the question.

In this case, while a severe strain on patience and the old tissues, the very fact that we were forced to grab nearly all of our shots resulted in a series of unposed natural and vivacious scenes which will, I believe, wholly captivate the millions who are quint fans.

In "The Country Doctor" which many critics regard as the best picture of the year, you may recall the quintuplets were shown in one sequence only and that one well to the end of the picture. But in "Reunion," answering public clamor for more footage of the world's greatest scenic attraction, the five youngsters are shown throughout the film. This means they have important part in story development and hence must go through action prescribed in script.

As before, our contract called for one hour actual shooting each day, we to use as many days as needed to complete the scenes. Interiors of the children's playroom are used as previously, and also for the first time in a production exteriors.

Camera and light equipment taken to the location were the same for interior work with minor exceptions. This time, a second camera was included. Also, instead of the blue screens over the light units iridescent planes were used which broke up the light beams and obviated

Continued on page 486

Filming the Big Game

by
C. J. Hubble
Western Editor, Heorst Metrotone News

FOOTBALL IS A greot gome—but it's one of the toughest of all sports to ilm well Almost onything is likely to hoppen at any time, and the only woy to be sure of bringing bock o good film "story" of the game is to use a lot of film Our professionol newsreel crews hove leorned this from sad experience, when one is assigned to "cover" o game, he goes prepared to shoot ot leost ten times os much film os will be octuolly used in the release The overage football "story" seldom overages more than obout 150 feet—but the footage is selected from the best shots in the 1,500 to 2,000 feet the comeraman has exposed

Yes, I soid comeroman! Lots of people seem to think that becouse of the mognitude of o big-college footboll spectocle, ond from the voriety of ongles in our footboll stories we must assign o whole army of cameramen to eoch football game Actuolly, we seldom assign more than one crew to o gome After oll, there's only one game going on in the stadium—so one cameroman (if he's on his toes every minute! can "cover" it perfectly

The news cameromon with his comera equipment the sound-man, ond the chap who comments on the ploys for the sound-track, take up their position in or on top of the press-box, high on the rim of the stodium This is the ideol vantage-point for filming football shooting down, one gets a much better idea of the game as a whole, and in the pictures the players move ogainst the bockground of the grassy field, rother than (os would happen shooting from a lower angle) ogainst the confusing jumble of the opposite stands

Shooting from this distance meons lono-focus lenses, of course Sometimes our newsmen will use lenses as large os 12" focus to moke full-screen shots of spectocular posses and the like Much more often, though they use 6" objective This will still fill the screen with the players, but instead of limiting the picture to but o single player, it shows both teoms, and gives o much more understandable picture of the play For atmospheric shots of the crowd os o whole, the normol 2" lens is used, ond either it or some intermediote focus is brought into play to cotch shots of between-holves rooting-section stunts In every cose, we use the fostest lenses possible, for in the later quorters of the game—especially in bod weother—the field gets mighty dork

Filming the gome itself, our men shoot olmost every ploy, to be sure of cotching the spectaculor ones Experience—coll it football-wisdom, news-sense, or whatever you like—helps the newsmen, especiolly in teaching them what ploys not to film For instonce on our newsreel, we seldom film kick-offs Only in rore instonces does o spectoculor return occur following o kick-off And kick-offs do not moke very interesting pictures, for the players ore too bodly scattered to get any sort of o picture of the ploy, you have to use o short-focus lens—onc with thot, the players are little more than specks on the screen, while the ball is invisible Besides everyone knows o footboll gome storts with o kick-off

Most line ploys fall into o similor category In modern mojor-college football, line ploys seldom net spectaculor goins, and pictoriolly they simply show o tongled knot of squirming players

Running plays, posses and punts make the best pictures, ond our men watch closely for them, ond shoot neorly oll of them And of course any sort of o play shown oround the gool-posts is worth shooting if it goes over for o touchdown, it's news, if the defenders throw it back for o loss, it's still news!

Most football games worth "covering" for o newsreel ore whot we coll "Hot spot-news" That is, they are principolly of locol interest, except when outstanding sectional or notional champlonship contenders meet, therefore such "Spot-news" stories go to the regionol, rather than the notional release And they are definitely "hot" news, their news value drops ropidly o very few days after the game So these stories have to be released os soon os possible after the game The whole newsreel organization hos to work fost to get these stories out Suppose U S C ond Stonford tongle in Los Angeles The game is over by five o'clock our stories must be ready to go on in Los Angeles' more important theotres by seven o'clock that same night! Sometimes, thonks to modern 200-mile-an-hour airplones, we've even had our pictures on San Froncisco screens at the second show that same night

Continued on page 484

WHEELS OF INDUSTRY

Magazines Wanted

• A good home for those old motion picture magazines you have around the house is offered by the Academy of Motion Picture Arts and Sciences. During the past year the Academy has been building up its Library, on the twelfth floor of the Taft Building, to include as complete as possible a collection of books and periodicals about motion pictures.

The Academy is anxious to secure rare or out of print books and particularly a number of missing volumes of "American Cinematographer" magazine.

Following is a list of the issues needed: Volume 1 (1920)—entire volume. Volume 2—issues 1 to 18, 21 and 29. Volume 3—1, 3, 4, 6 and 11. Volume 4—3 and 7. Volume 5—11. Volume 8—7, 8, 10, 11 and 12. Volume 9—6, 7, 10, 11 and 12.

Leica Exhibit at Rockefeller Center

• The International Leica exhibit was opened to the public from October 20th to November 5th at Rockefeller Center.

The Third International Leica Exhibit was said to be the biggest candid miniature picture show that this country has ever seen. Over 600 new photographs were included in the New York Exhibition, showing the work of photographers from all over the world. There was an amateur group, and a special amateur prize contest was again conducted. All visitors were invited to vote on the best pictures. The photographers whose work were exhibited include: Ivan Dmitri, John T. Moss, Jr., Willard D. Morgan, Charles Peterson, Rudolf Hoffman, Barbara Morgan, James M. Leonard, Rockwell Kent, Tom McAvoy, Gilbert Morgan, Max Haas, Carl Van Vechten, Robert Disraeli, Peter Stackpole, Manuel Komroff, Russell Aikens, and many others.

9.5 Film Lost

• By mistake a 50 ft. roll of 9.5MM film was picked up from the Hollywood branch of Bell & Howell. The subject matter of this film had to do with Czechoslovakia. Should this notice come to the attention of the person who received it the owner would appreciate its return to Bell & Howell Hollywood branch.

1937 Annual

• The 1937 American Annual of Photography is off the press. Its 324 pages are rich in photographic information. They are also lavish with fine specimens of photography as achieved by some of the leading portraitists and pictorialists. A feast for the photographic eye and for the student of his art.

We mention only briefly some of the interesting subjects covered. "Photography by Polarized Light." This is still something new with most photographers. Many have not as yet bought their polaroscreens, but are eager to know all about them before making that investment. While you have read considerable about this new effect filter, still there is always the other fellow's viewpoint. There is a chapter about "Movies in Color." For the fellows who dabble in hypo and developers there is the paragraph entitled, "The Control of Negative Contrast by Dilution of the Developer."

These of course are just a few of the paragraphs that caught our particular fancy. There are many others that may have a stronger appeal to you.

Color Cinematography

• American Photographic Publishing Company has also just put on the market a book bound in cloth entitled "Color Cinematography."

This book goes into detail in describing the existing color methods being employed in movies. It also goes into history and relates about things and conditions that have led up to the present trend in color. Naturally it discusses the Additive and Subtractive methods. It tells something about how cameras for the making of color photography are built.

Price Reductions

• An all-over reduction of more than 10 per cent in the list price of seven inside-frosted silvered bowl Mazda lamps and twelve large-size lamps designed for spotlight, floodlighting, and motion picture production service, effective September 1, was announced by the Incandescent Lamp Department of General Electric Company.

The Mazda lamps affected and their new prices follow:

TYPE

Silvered Bowl Watts	Inside Frost Bulb	Present List Price	New List Price
60	A-21	$ .50	$ .45
75	A-21	.70	.60
100	A-23	.70	.60
150	A-25	.80	.70
200	PS-30	1.10	.95
300	PS-35	1.60	1.45
500	PS-40	2.60	2.25

SPOTLIGHT SERVICE

Watts	Bulb	Present List Price	New List Price
*100	P-25 Med Prefocus	$1.15	$1.00
*250	G-30 Med Prefocus	1.90	1.65
*400	G-30 Med Prefocus	3.15	2.80
**1000	G-40-Mogul Prefocus	7.15	6.65

*Medium screw base lamps, with a light center of 3 inches can be supplied at 15 cents less than price shown.

**Mogul screw base lamps with light center length of 4¼ or 5¾ inches can be supplied at $6.25.

Floodlighting Service

250	G-30 Medium	$1.75	$1.50
500	G-40 Mogul	3.25	2.90
1000	G-40 Mogul	6.75	6.25

Motion Picture Production and Airport Floodlight

5000	G-64 Mogul Bipost	$40.00	$35.00

Enlarging Easel

• The Carmill Co. announces an enlarging easel from which the image from the enlarger passes directly to the Bromide paper and not first through any other material such as glass, etc.

If desired, pictures may be made with borders by using the masks furnished with this easel.

It may be used with either a vertical or horizontal enlarger.

Any size enlargment may be made on this easel up to and including 11x14.

Kodachrome, Type A

• Kodachrome Type A, is announced by the Eastman Kodak Company for indoor movies in full natural color with Cine-Kodak Eight and for "stills" with Kodak Bantam Special, Kodak Retina and similar miniatures.

This new film is color balanced to

Continued on page 490

MORE CLARITY
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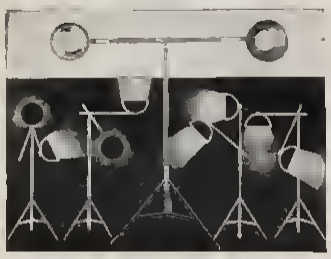

Poor indoor shots due to improper lighting are no longer excusable. This sensational new Britelite unit does the work of expensive, elaborate equipment—yet costs only a few dollars. It is so obviously practical—a pair of 10' corrugated aluminum reflectors on ball-swivel joints are attached to sliding and swinging arms, (5 ft. radius), which in turn are connected with thumb screw to 6½ ft. adjustable tripod. Solid steel construction!

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FILMING THE BIG GAME

Continued from page 482

This means fast work all along the line with everything planned ahead of time to cut corners. For instance, take the matter of titles. We usually make up three titles—sound and all—long before the game is played. One will read "U S C HUMBLES STANFORD before crowd of 80,000", the other, "STANFORD DEFEATS U S C. while 80,000 cheer", the third, "U S C AND STANFORD BATTLE TO TIE." Win, lose or draw, we're covered—and the negative of the titles is ready to be cut in and printed with the picture-story of the game! In the old days of silent newsreels we followed the same idea, but instead of having the titles all photographed we had title-cards made up complete but for the score. This was added, the title photographed and developed while the picture-negative went through. But today, sound takes care of the score for us, toward the end of the game, the commentator speaks the score into the microphone **while the camera shoots the crowd.**

Incidentally it's quite a job that commentator has. He must comment on the plays as they happen and he can't be too free with his words, for the sound is recorded on the picture-film, and will be cut with the picture. On our hurry schedule, we can't waste time for revising or re-recording the sound—it goes "as is"!

And how can these professional methods be applied to substandard filming? Well, let Sanford ("Sammy") Greenwald, Hearst-Metrotone's ace News-filmer, tell you. He says "In most news filming, a safe hint to the amateur is to set up beside or behind the professional news crews, but in football, this isn't possible, since we perch way up on top of the press-box. But the amateur can and should get himself a seat high up in the stands, as near midfield as possible. An aisle seat is good, for it gives a fairly clear sweep for his lens, so is a seat right over one of the higher entrance-tunnels. A tripod is mighty good insurance with a telephoto lens—if you have room to set it up, and a place where some excited fan won't kick it over. Some device like the 'beltipod" is helpful, if you can't set up a tripod.

"Shooting on 35mm film, we use a 12" lens for extreme close shots of individual players following the ball on passes, and the like, and a 6' lens for most shots of the game as a whole. Reduced to 16mm, this means a 6" lens for extreme close-upping, and a 3" lens for the major part of the game. For 8mm, the combination is a 3" and a 1½" (35mm or 40mm focus). If you haven't got a 6, don't worry, you can do very well without it.

"Take plenty of film, you'll need it. For the early part of the game, while the light is good, use the cheaper Ortho or "Chrome" type film—it is not only cheaper, but its greater contrast helps make the players stand out from the turf. For the latter part of the game, use the fastest super-sensitive Pan you can get. You'll need its speed as the declining sun throws the field into deep shadow.

"You folks who have substandard cameras have one great advantage over the professional's: we've got to shoot everything with one rigidly fixed camera speed, while you can slow down the movement by speeding up your cameras. This takes more footage, but it gives a more understandable picture. I'd suggest shooting most of your scenes at the 32-frame speed. This slows the motion nicely—and when you want real "slow-motion" effects, you can get them by merely slowing down the projector.

"Shoot as many of the plays as you can. Naturally, unless you are prepared to shoot the whole game, you can't shoot every play, so you'll have to use some football sense to choose the best plays. Kick-offs and line-plunges can usually be ignored as they don't make very good pictures. And with a little experience, you can learn to guess what play is likely to come up with fair accuracy. Of course, since the plays are designed to fool the opposing players and coach, who knows more about the game than you do, you're likely to get fooled now and then, we all do. If a team has a good passer—for instance, you can often spot him dropping back in the line-up before a long pass-play—and get your 6 ready for a close-up and then follow the ball through the air. If the team isn't gaining yardage, you can always expect a kick on the fourth down—and sometimes on third down, if the ball is in that team's own territory. If a team is behind, and making slow going inside the opponent's 20-yard line, be on the look-out for a place-kick; a field goal adds useful points. And watch for wild passes from the trailing team in the second and last quarters! Sometimes they click for upset wins, remember.

"Never let yourself get too low on film. Something might happen just as you run out! In the recent California-St. Mary's game, Cal got the ball on St. Mary's 3-yard line. I had less than 150 feet of film—and no time to reload. When St. Mary's finally threw

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the Beors back from within inches af a touchdown, I was a nervous wreck—if they hod gone over for a tauchdown, I d have missed it, for I was aut af film! Take a tip from me when you find your film getting low—dawn to the last ten ar twenty feet—use it up at the first "time-aut" period, making an atmaspheric shat af the crawd (with your 25mm lens), and reload."

One last thing which "Sam" forgets to mention, don't let yourself get excited aver the game until it s all safely on celluloid When the man at the camera starts getting excited, he is all tao likely to forget to make pictures Better follow Sam's example he is cool as a cucumber during the game, and grinds away as though he didn't know a game was one But afterwards, in the projection-room, watching his own pictures af the game, you aught to hear him! He's a one-man raating sectian in himself!

Shooting Quintuplets on the Wing

Continued from page 481

any possibility of direct rays hitting the young eyes This diffusian answered Dr Defoe's sternest demands

For exteriars, I used a cambinatian that has nat, to my knowledge, been previously employed and which I can warmly recammand Over gald reflectors I placed a layer of babinette netting ar gauze, attaching it permanently to the baards This pravided amply diffused light minus disturbing glare or hat beams bouncing inta the ten little eyes. They could laak directly into the covered reflectors without a blink

On cool cloudy days we worked inside with the lights On warm sunny days we maved outdaors to the playground . Weather was nane too good We turned cameras an fourteen af the twenty-faur days at Callender

Profiting fram previaus experience, I took an assortment af very wide-angle lens with lang focus

The public laaks upan the quintuplets as a unit The story called for their appearance in scenes as a unit But those five little girls are far from being ane unit They are, instead, five units, each with her own individual characteristics, ideas, preferences and hunches

This was driven hame to us when we started on the play yard scenes The yard is abaut 75 feet wide by 125 feet lang And the five little stars would scatter themselves over that area as though their main idea was to caver as much territary as possible Getting all five of them in ane shat was a jab for a squad af round-up veterans

Our director gave the two very cooperative nurses instructions as ta what the quints were wanted ta do They would try to transmit the orders in French to their charges What would happen was anybody's guess At one time the business called for the girls to raise their right hands The nurses explained at great length and gave convincing demanstrations The quints rehearsed perfectly As saan as the nurses stepped aside and the cameras started, little Marie elevated her left hand and the other four galloped ta far corners in great glee It apparently seemed to be a new game and they romped abaut having a great time Then, when we were least expecting the move, they lined up and praudly raised their hands The fact that they were left hands and nat right, bathered them nat ane iata nar decreased their pride af achievement. Following that, our prablem was how to keep the hands aut af waving position

The first camera was trained on the general shat and the secand camera gat the close-ups Even the close-ups were grabbed when, as and if we had appartunity. Incidentally, we succeeded in getting screen-filling head close-ups af each af the girls for the first time which I believe audiences will ga far in a big way These were taken with the quints fram fifteen ta fifty feet distant from aur lenses Naturally, they are true and vivid partraits.

Each daily hour with the children was sixty minutes af alert, tense, quick-an-the-trigger shooting The whole affair was of caurse incomprehensible to them They ramped and galloped freely in all directians while we caunted the flying minutes Then, with no warning, the five would suddenly came together and af their own valitian ga through the business we wanted We had ta be ready to catch them They would probably never repeat the performance

The amazing and gratifying factar is that the scenes, taken in this apparently hap-hazard fashian, screen ta vastly greater advantage than if the girls had fallawed instructians There is a definite feeling af gay natural ebullitian, af uncaged and unharnessed young normal animal effervescence, af the priceless rallicking spirit af little-girlhaad, that probably would not prevail had we been able to follow schedule

We took a full studia working crew to Callender Our equipment was marvelous Dr Defoe and his staff af nurses helped in every way possible But those five little stars af world fame certainly gave less heed to director and cinematographer and concentrated an

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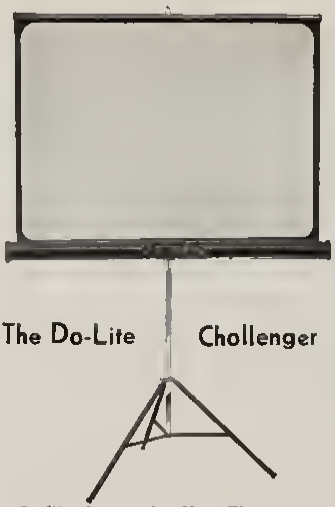

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The Busman Goes for a Holiday Ride

Continued from page 476

For telephoto shots, you want as long a lens as possible Hence, the 4-inch

As for speed, I feel that an f 2 5 lens is fast enough for all average use It gives a slower but sharper image than the ultra-fast lenses

Unless the set-up positively prohibits, I use a tripod for all scenes

Because my studio days are filled with filming action that is carefully rehearsed and posed, I relish shooting spontaneous action when I'm on my own Here's a little trick I have frequently used to capture this highly desirable true action Particularly in foreign countries, scenes of native life should catch the subjects off guard There's nothing quite so bad as a few inquisitive natives staring into the camera or posing in stiff attitudes

In China, I found the natives flatly adverse to having their pictures taken It's a matter of superstition Point a camera at them and they evaporate Yet, they are very curious This is how I fooled them

I would encounter, let us say, an aged and wrinkled Chinese woman scrubbing the ears of an offspring An interesting item of local color and custom Quite deliberately I unfolded tripod and set-up my camera—but pointing it in a different direction and apparently paying no attention whatsoever to Grandma Exposure was established and focus made on an object equally distant from the camera as was the real target of my camera Then I elaborately concerned myself with puttering at other things When Grandma's attention was diverted from the camera, I quietly swung it into proper position Again as her curiosity waned, I sneaked a fast peek into the finder and made sure of the composition Then, with my back turned, I pressed the button and let the camera roll

By cultivating a naive and innocent demeanor I have filmed close-up scenes of intimate native activities that are really priceless

At Tahiti I got some attractive underwater shots in a simple way. I fashioned a water-tight wooden box about twelve inches square with a glass bottom Camera was screwed to one of the wooden sides Lens was some six inches from the glass I was paddled in on outrigger to a suitable location Focus was set at six feet The sea was probably twelve to fifteen feet deep I submerged the glass bottom just below the rippling

surface of the water Color film was in the camera and I come away with beautiful views of undersea rocks, coral, ocean vegetation and weird metallic blue fish darting by It's an elementary contrivance, but it works

All of my twenty-five full reels are titled I think it a great mistake not to title pictures They make them far more interesting and bridge the gap of faulty continuity Titling should be done as you go along and while enthusiasm in the subject is still high If put off, interest wanes and the needed titles never get made Personally, I like typewritten titles, they're inexpensive and easy to make

Father and Son Scenario

Continued from page 480

sudden decline in marksmanship Son asks for the rifle He'll have a try at it. Father hands him the rifle in patronizing fashion

SCENE 36. CLOSE UP of Son's face as the rifle comes up with its sights to eye level

SCENE 37 MEDIUM SHOT Son taking careful aim, finger hard on trigger Father can't be blamed for being a bit amused at the manifestly impossible stunt

SCENE 38 CLOSE SHOT Playmate behind fence, eye glued to his crack, holding his stick supporting the dime A healthy smile of anticipation wreathes his face

SCENE 39 CLOSE SHOT Son pulls the trigger

SCENE 40 CLOSE SHOT Behind the fence Playmate jerks down his stick triumphantly

SCENE 41 LONG SHOT Father and Son in foreground Father gapes in amazement as the dime disappears from the fence

SCENE 42 MEDIUM SHOT Father and Son Father is still astounded at the incredible exhibition of sharp-shooting Son is largely modest In fact, he offers to repeat the performance, extending his hand hopefully for another dime

SCENE 43 MEDIUM SHOT Behind the fence, Playmate is carefully crawling away, the dime grasped between thumb and finger

SCENE 44 CLOSE SHOT Father and Son Father smiling denies the second dime Apparently convinced, he pats Son's head in congratulation and turns to leave

SCENE 45 LONG SHOT Son in foreground watches Father disappear into house Then, like a bullet, Son races to the fence and over

SCENE 46 MEDIUM SHOT Playmate

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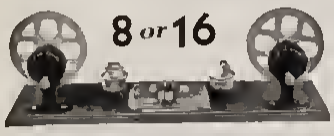
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slowly walking along sidewalk. Son sprints in to him. They examine and admire the prized dime. Laugh gayly in mutual approval. Walk rapidly on.

SCENE 47. MEDIUM SHOT. Arms around each other, the two young conspirators happily enter an ice cream shop flying a leading sign "Giant Cones 5c." The dime is held victoriously aloft.

FADE OUT.

A half-dozen clay pigeons may be obtained for a few cents at any sporting goods store. If Father is good enough shot to smash them in flight with a shot, you can shoot the scenes that way. If not, use a short-focus lens, toss the pigeon in the air close to the camera and shoot the small shot of it from short distance, the rifle, of course, not in the picture.

Close cutting must prevail between pulling of trigger and disappearance of target from fence to give the effect of shot hitting its mark.

WHEELS OF INDUSTRY

Continued from page 483

compensate for the quality of light supplied by Photofloods for movies and Photoflood or Photoflash lamps for "stills." Consequently, no filter is necessary for indoor pictures with such artificial light.

Kodachrome, Type A, may be used in the daytime, too, by placing a Type A Kodachrome Filter for daylight over the camera lens.

The retail price of the 25-foot Cine-Kodak Eight roll, including the processing, is $3.75, the same as for the regular 8mm size announced last May.

Kodak Bantam Special rolls, known as K828A carry eight exposures. Kodak Retina and similar 35mm miniature "still" cameras take Type A Kodachrome K135A rolls having 18 exposures.

B & H Catalog

● Bell & Howell Company have just issued a new 56-page catalog of library films. The book lists more than 300 reels of 16mm sound film, and contains more than 40 illustrations.

Among the features announced are "Don Quixote," starring Feador Chaliapin, "William Tell" starring Conrad Veidt, "The Viking," "Torzon" "Thunder Over Mexico" and many other dramatic hits. Much longer is the list of adventure, travel, nature, sports, historical, and musical films, and also the list of comedies and cartoons.

Recommendations as to audience suitability are made in the form of a simple index key—indicating whether the film is best suited for general entertainment, home, school auditorium, classroom or church use. Only three films are keyed as intended primarily for mature audiences.

Most of the releases, such as the productions of Educational Film Corporation, Principal Pictures, World-Wide Films, and other leading Hollywood and foreign producers are available on rental only. In other cases where prints may be purchased outright, this is indicated.

The book is priced at 15 cents per copy and may be obtained from Filmosound Library Headquarters, 1801 Larchmont Avenue, Chicago, Illinois, or from its branches throughout the country.

Weston Folder

● Up-to-date speed values for all films and plates in common use, both for stills and motion pictures, are given in a new folder just published by the Weston Electrical Instrument Corporation, Newark, N. J. The list of almost 200 Weston speed ratings includes the newer color films as well as black and white emulsions of domestic and foreign manufacturers with values for daylight and incandescent light.

In addition to film speed ratings, the folder contains suggestions for exposure of color films to aid color fidelity within the more limited exposure range of this type of film. Copies of the new folder are being mailed to all registered owners of Weston meters. Other Weston owners whose names are not now on this list may obtain copies by writing the manufacturer.

Camera Movement as an Aid to Continuity

Continued from page 478

up any inequalities or unevenness in the surface over which they are rolled. Tracks, as used for the heavy studio camera equipment, are not needed.

In making these moving shots, you will find an assistant almost necessary. Mark your two camera positions. Set and make a note of the focus at each position. As your assistant moves forward the vehicle bearing your tripaded com-

era, you can smoothly change focus to the new and nearer distance

On a follow shot or a trucking shot before a line-up of people—a more satisfactory way of making a group view than by panning—focus remains the same and attention is given to steady movement of camera and improvised dolly along the predetermined course

Judicious camera movement has deserved place in amateur film production It will add life and interest to your pictures But in the fascination of this technique, resist the temptation to have your camera constantly in motion Abide by these simple fundamentals and you'll have great success

Newsreeling on a Presidential Campaign Train

Continued from page 479

the last minute We are about as well, or even better organized on this big political show here in the prairie stotes than P T Barnum, with his three ring show

After the speech, we have only a few hours to strike down and rush for the train also get our negative off for New York Then we have to wait a half hour around the depot while the local handshakers again do their turn, finally getting out of town late at night and under way for the next big speech on the morrow with all the small town stops enroute

Adding Sound to Sight on 16mm

Continued from page 477

The sound-head on the projector, which takes sound from the filmed vibrations on the sound track, can not, for physical reasons, be at the projection aperture Compensation on the film must be made for the distance between these two points in order to have sound and picture synchronize when projected For the Bell & Howell sound projector, for example, the sound track is set 25 frames ahead of the picture

Thus, picture and sound are not in "sink" on the film, but are in "sink" in relation to the mechanism of the projecting device

16mm films with sound are not merely a promise They are being made every day The advanced amateur, by investing in needed equipment and experience, can make them as readily as he does the silent versions

But for the time being, most of them will be content to confine themselves to camera work and pass along the sound accompaniments to technicians who are equipped to handle this specialized practice

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The American Cinematographer 1936 Amateur Competition is open to amateurs all over the world who use either 8mm or 16mm film

The films *must* be in the office of the *American Cinematographer* not later than November 30, 1936

There are no restrictions as to the number of subjects that may be entered nor are there any restrictions as to the length of the subjects. The one strict rule that applies, however, is that no professional help is received in making of the picture. This does not include titles which may be made at a laboratory

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The pictures will be classified so that the competition may be fair to all entrants. By this we mean that an entrant having a documentary film will not compete with one who has based his on a scenario Of course there will be more classifications than these The classifications will be created according to the pictures that are received

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